

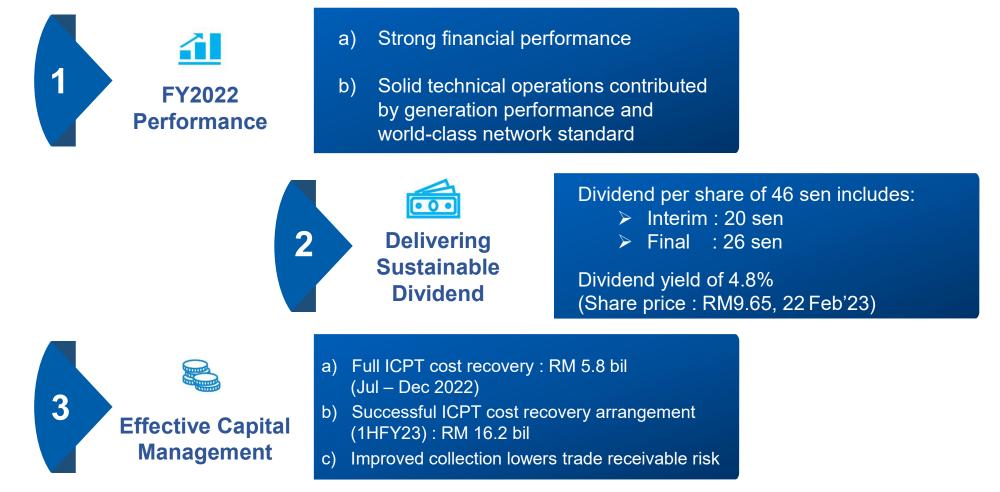
4Q FY2022 Analysts Briefing

28 February 2023



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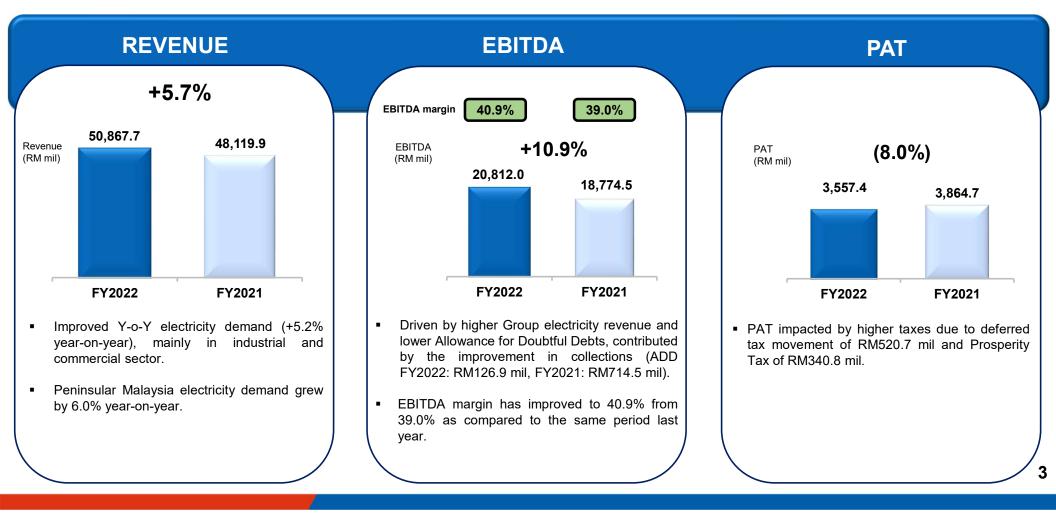
Key Highlights: Delivering strong performance with sustainable dividend to shareholders; *Feller*, *peller*, *peller*







Strong FY2022 financial performance (EBITDA) supported by higher Peninsular electricity demand at 6.0% year-on-year





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Group earnings supported by; (i) Improved generation business (ii) World-class network performance



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Equivalent Plant Availability Factor, EAF (Generation) %

Year	Achievement	Target
2021	83.0%	86.1%
2022	83.2%	82.8%

2023 Target: 81.8%



EAF performance secured generation assets' capacity revenue





Year	Achievement	Internal threshold
2021	0.1	2.0
2022	0.2	2.0

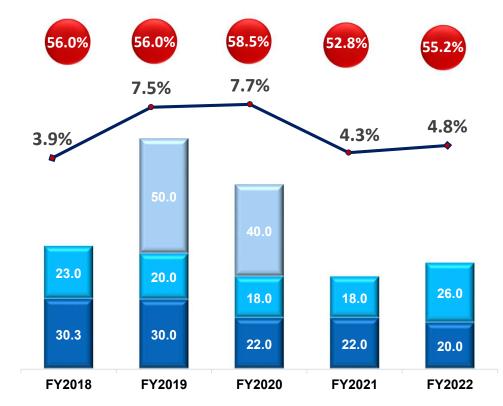
2023 Internal Threshold: 2.0

Year	Achievement	Internal threshold
2021	45.3	55.0
2022	45.1	55.0

2023 Internal Threshold: 53.0



World class network performance safeguarded our regulated business earnings We strive for sustainable dividends to ensure long term value for the shareholders, for



DIVIDEND POLICY

We will continue to honour our dividend policy of 30% to 60% dividend payout ratio, based on the reported Consolidated Net Profit Attributable to Shareholders After Minority Interest, excluding Extraordinary, Non-Recurring items

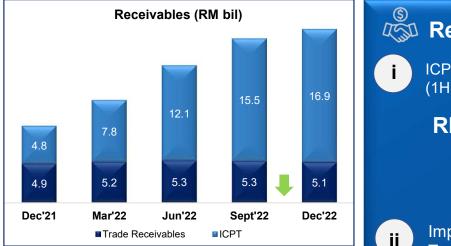
Interim dividend per share (sen) Final dividend per share (sen) Special dividend per share (sen)

• Dividend Payout ratio (%) (based on Adjusted Group PATAMI and excluding special dividend)

Dividend Yield

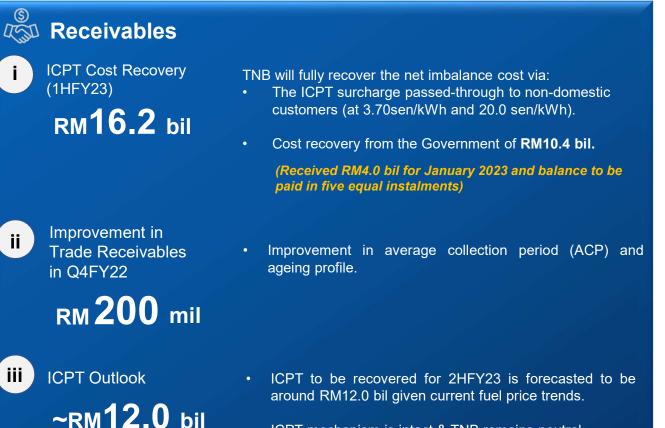


Effective working capital management alleviates pressures from high fuel prices



- Amid the high fuel cost, ICPT receivables remained relatively high due to the timing mismatch between the upfront payment made by TNB and recovery of the surcharges via the ICPT framework.
- Going forward, pressure on ICPT receivables is expected to ease given current fuel price trends and Government upholding the IBR framework.
- Coal price has moderated from 345.93 USD/MT* in Jun'22 to 311.23 USD/MT* in Jan'23.

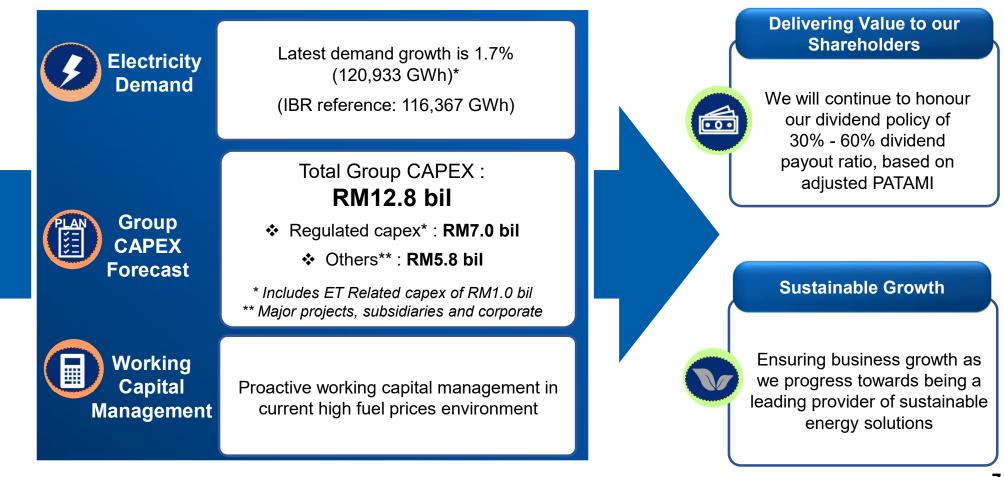
* Source: globalCOAL Newcastle index



ICPT mechanism is intact & TNB remains neutral.

2023 promises to be another exciting year as we pursue our Net Zero 2050 aspirations





* Source: Planning and Implementation Committee for Electricity Supply and Tariff



Key Highlights: Our commitment to sustainability has intensified in 2022, resulting in exciting developments across our businesses



c) Winning the Customer

Future Generation Sources

4a

To date, GenCo and NED have a strong ~8,000MW pipeline ready to be explored for opportunities…



	•	
2022 Key Achievements	Pipeline Projects	2023 Outlook
Nenggiri Hydro Project300MW CD: Q2 2027• Construction works commenced in March 2022.• Progress as of Dec 2022; 10.5%Sungai Perak Life Extension Programme (LEP)650.75MW COD: Q3 2025• Completed EPCC Proposal	Paka Repowering1,400MW COD: 2030• Ongoing discussion between TNB GenCo and related party.• New Combine Cycle Power Plant (CCGT), Kapar2,100MW COD: 2031• Discussion with consultant on feasibility studyElectricity Export to Singapore100MW COD: 2023• Export 100MW of electricity to Singapore, potential revenue contribution ~RM500 mil	 Nenggiri Hydro: Expected to COD in Q2 2027 Sungai Perak LEP: Finalised new PPA Paka Repowering: Establishment of feasibility study, as per Energy Commission's scope. New CCGT, Kapar: Collaborative Agreement with partner Continue focus on plant performance enhancement programmes at 5 key domestic plants, i.e. JMJG, JEP, SPG, TJPS, TNBP
2022 Key Achievements	Pipeline Projects	2023 Outlook
102MW solar farms in the United Kingdom (UK) and an option to develop 65MW co-located Battery Energy Storage Systems (BESS) Acquired 97.3MW Onshore Wind Portfolio in the UK	Pipeline totaling ~4.4GW across focused markets to support our growth targets.	Expand focus beyond ASEAN into APAC (South Korea, Taiwan and Australia)
 Completed £72 mil refinance package for TNB's offshore wind investment in Blyth Offshore Commencement of LSS4 project, TNB Bukit Selambau 2 of 50MW 	Large-scale Solar PV Onshore Offshore wind wind	 Growing UK/EU renewables portfolio To pursue opportunities in the pipeline of 4.4GW LSS4 expected COD in Dec 2023
	Nenggiri Hydro Project300MW CD: Q2 2027• Construction works commenced in March 2022.• Progress as of Dec 2022; 10.5%Sungai Perak Life Extension Programme (LEP)650.75MW CD: Q3 2025• Completed EPCC ProposalDec 2022 Construction of the Construction of t	Nenggiri Hydro Project 300MW COD: 20 2027 • Construction works commenced in March 2022. • Orgoing discussion between TNB GenCo and related party. • Progress as of Dec 2022; 10.5% • Orgoing discussion between TNB GenCo and related party. • Sungai Perak Life (LEP) 650.75MW COD: 20 3 2025 • Completed EPCC Proposal • Oscussion with consultant on feasibility study • Decussion with consultant on feasibility study • Discussion with consultant on feasibility study • Completed EPCC Proposal • Discussion with consultant on feasibility study • Data Market Solar farms in the United Kingdom (UK) and an option to develop 65MW co-located Battery Energy Storage Systems (BESS) • Pipeline Projects • Acquired 97.3MW Onshore Wind Portfolio in the UK • Completed £72 mil refinance package for TNB's offshore wind investment in Blyth Offshore • Commencement of LSS4 project, TNB Bukit Searboa 2 of 50MW • Offshore • Commencement of LSS4 project, TNB Bukit • Orgoing Content of 50MW • Commencement of LSS4 project, TNB Bukit • Orgoing offshore • Orgoing discussion between TNB GenCo • Offshore • Orgoing discussion between TNB GenCo and related content of to forgow • Offshore

4a Future Generation Sources

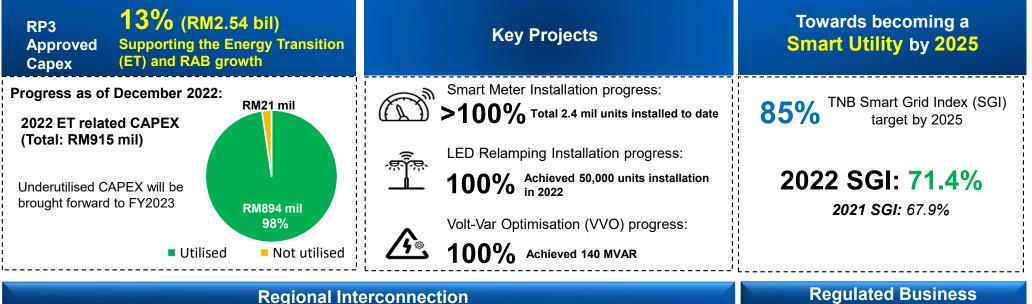
Joint studies on green technologies are imperative to ensure the success of our strategic plans



Green Technology	Joint Study	Current Updates & Outlook
Hydrogen	TNB & Petronas Source: TPGSB	 TPGSB is currently working under Joint Working Committee with PETRONAS on Green Hydrogen under the corporate MOU signed on 19 August 2022. Finalising feasibility study agreement to explore on supply of green electrons and work across low carbon value chain.
Ammonia	Feasibility Study on Co-Firing Ammonia in Coal Fired Boiler TNBR/TPGSB - IHI Corp Japan/IPSM - PETRONAS Source: TPGSB	 Successfully conducted ammonia co-combustion test as part of a joint initiative to decarbonise the country's power sector. To determine the optimal method on pollutants reduction in the future.
	Feasibility Study on Co-Firing of Biomass & Ammonia in Jimah East Power (JEP) TPGSB - JEP - Mitsui - Chugoku Source: TPGSB	 Phase 1 of the feasibility study has been completed and the report has been submitted to Ministry of Economy, Trade and Industry (METI) of Japan. Currently embarking on feasibility study of Phase 2, i.e. small scale ammonia, biomass & coal co-firing.
Carbon Capture, Usage & Storage (CCUS)	TNB & Petronas Source: TNBR	 Embarked on the carbon capture initiative to assess the technologies and business viability of CCS as a key player in CO2 emissions reduction. To evaluate the integrated Onshore/Offshore Carbon Dioxide (CO2) facilities, which the outcome will be an input for TNB carbon management strategy.

We play a key role in regional interconnection...one of our Grid of the trailblazing initiatives towards a successful transition for all **Future**





2022 Key Achievement

Malaysia – Singapore Interconnection

4b

- i. Completed the upgrading of the electricity interconnector between both countries in October 2022.
- ii. The interconnector able to accommodate bidirectional electricity flows of around 1.000 MW between Malaysia and Singapore.

2023 Outlook

TNB Collaboration with PLN and EGAT

- Collaborate and explore opportunities on interconnection as well as other Energy Transition initiatives between countries.
- To conduct feasibility studies to enhance the interconnection capacity between respective countries.



Regulated Business

2023 Outlook

Key Projects Target Installation

- Smart Meter: 0.6 mil units
- VVO: Additional 140 MVAR

Green Energy Islands

RE (Solar, BESS & Energy Management System) Phase 2 Award at both Pulau Perhentian and Pulau Redang



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Winning the Customer

he Establish partnership with prominent industry leaders to develop extensive electric vehicle ecosystem for the nation



Electron Charger Hub

Launched 2 hubs for pilot testing; first highway equipped with Direct Current Fast Charger (DCFC) along north-south highway (R&R Ayer Keroh and Paka).



TNB to invest ~RM22 million in 2023 to spur the development of EV ecosystem

- Deployment of 40 EV charging stations along Peninsular highway roads and trunk roads. To date, TNB has identified 18 charging stations along highways.
- 2023 Outlook
- Collaborate with local petrol stations on EV charging points at Peninsular trunk roads
- Deployment of EV charging stations within SP Setia townships
- To build the nation's first solar-powered electron stations for electric vehicle (EV) in Klang Valley (Gamuda Cove and Gamuda Garden)

TNB signed six Memorandums of Understanding (MoUs) with various industries to proliferate EVs in Malaysia

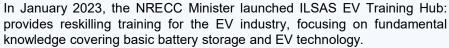












ILSAS Electric Vehicle (EV) Training Hub

ILSAS is equipped with:

- Simulator for the AC and DC charging system
- EV Battery Management System simulator

- EV Air-condition system and
- EV Battery technology



Offer trainings certified by International bodies and develop more related courses on EV in order to support Malaysia EV Industry.

Electric Vehicle Training Hub

2023 Outlook



ILSAS expected to train ~400 participants in 2023 for EV and Battery Storage training starting in 2QFY2023.



100% increase to ~250k users of Energy Budget feature in myTNB:

8,071 tonnes of CO2 avoided

Potential savings of ~11GWh in household energy consumption



Winning the Customer

GSPARX will provide the 'extra' push on renewable energy penetration while growing TNB's revenue source

GSPARX

4C

2022 Key Achievements



Partnership with Smart Modular Technology

 GSPARX will install over 1MWp solar rooftop capacity with the combined solution of Green Electricity Tariff at Smart Company



Collaboration with Felda

 GSPARX will install solar rooftop in 14 premises owned by FELDA across Peninsular Malaysia with capacity totaling 1.6MWp



Universiti Malaysia Pahang (UMP)

• TNB has secured a project with UMP Pekan campus. This marks GSPARX third public university collaboration



Collaboration with McDonald's – Gerbang Alaf

• TNB will collaborate with McDonald's – Gerbang Alaf to install 1.2MWp across 39 sites throughout Peninsular Malaysia

GSPARX aims to secure ~145MWp for 2023

Targeted Market Segments



Residential





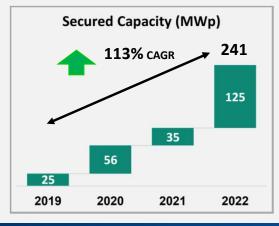
Industrial

- · Companies exporting goods and products overseas who require carbon credits
- Medium voltage customers impacted by ICPT



Government

Government buildings



Rapid growth since inception:

1774 Projects secured

241 MWp capacity

2023 Expected Revenue



Appendix

4Q FY2022

- Details on Financial Results
- Generation Business Performance
- o International Business Performance
- Shareholdings Analysis

Year-on-Year (Y-o-Y) analysis

				Variance		
RM mil		FY2022	FY2021	RM mil	%	
Revenue	1	50,867.7	48,119.9	2,747.8	5.7	
Imbalance Cost Pass Through (ICPT)		22,315.3	4,509.6	17,805.7	>100.0	
Operating expenses (without depreciation)	2	(53,209.6)	(33,832.9)	(19,376.7)	57.3	
Net loss on impairment of financial instruments	3	(101.4)	(940.2)	838.8	(89.2)	
Other operating income		940.0	918.1	21.9	2.4	
EBITDA		20,812.0	18,774.5	2,037.5	10.9	
EBITDA Margin (%)		40.9%	39.0%	-	1.9	
Depreciation	4	(11,402.5)	(10,691.5)	(711.0)	6.7	
EBIT		9,409.5	8,083.0	1,326.5	16.4	
Foreign exchange:						
- Transaction gain / (loss)		26.0	(101.1)	127.1	>(100.0)	
- Translation (loss)/gain	5	(249.5)	(67.4)	(182.1)	>100.0	
Share of results of joint ventures		21.0	29.3	(8.3)	(28.3)	
Share of results of associates		76.6	164.2	(87.6)	(53.3)	
Profit before finance cost		9,283.6	8,108.0	1,175.6	14.5	
Fair value changes of financial instrument		130.7	201.8	(71.1)	(35.2)	
Finance income		277.7	221.8	55.9	25.2	
Finance cost	4	(4,343.4)	(3,793.3)	(550.1)	14.5	
Profit from ordinary activities before taxation		5,348.6	4,738.3	610.3	12.9	
Taxation and Zakat:						
- Company and subsidiaries	6	(1,433.0)	(1,036.1)	(396.9)	38.3	
- Deferred taxation	0	(358.2)	162.5	(520.7)	>(100.0)	
Profit for the period		3,557.4	3,864.7	(307.3)	(8.0)	
Attributable to:						
- Owners of the Company		3,463.3	3,661.8	(198.5)	(5.4)	
- Non-controlling interests		94.1	202.9	(108.8)	(53.6)	
Profit for the period		3,557.4	3,864.7	(307.3)	(8.0)	

Y-o-Y analysis:

- 1 Higher revenue mainly due to Group's sales of electricity increased by 6.7%, driven by sales demand growth of 5.2%.
- 2 Higher operating expenses is mainly driven by higher generation cost.
- 3 Includes lower Allowance for Doubtful Debts (ADD) of RM126.9 mil (FY2021 RM714.5 mil).
- 4 Higher depreciation and finance cost mainly due to MFRS16 adjustment for EDRA Energy.
- 5 Higher loss in forex translation mainly due to the weakening of MYR against USD.
- 6 Higher tax expense due to Prosperity Tax of RM340.8 mil in FY2022 and deferred tax liability resulted from higher accrued revenue and capital allowance.

Quarter vs Previous Quarter (4QFY22 vs 3QFY22) analysis

1	4QFY22 12,915.1 6,397.7 (15,105.1) 26.9 263.2 4,497.8 34.8% (2,252,2)	3QFY22 12,961.8 6,109.6 (13,533.1) (48.1) 247.1 5,737.3	RM mil (46.7) 288.1 (1,572.0) 75.0 16.1	% (0.4) 4.7 11.6 >(100.0)
	6,397.7 (15,105.1) 26.9 263.2 4,497.8 34.8%	6,109.6 (13,533.1) (48.1) 247.1 5,737.3	288.1 (1,572.0) 75.0 16.1	4.7 11.6 >(100.0)
2	(15,105.1) 26.9 263.2 4,497.8 34.8%	(13,533.1) (48.1) 247.1 5,737.3	(1,572.0) 75.0 16.1	11.6 >(100.0)
2	26.9 263.2 4,497.8 34.8%	(48.1) 247.1 5,737.3	75.0 16.1	>(100.0)
	263.2 4,497.8 34.8%	247.1 5,737.3	16.1	,
	4,497.8 34.8%	5,737.3		
	34.8%			6.5
			(1,239.5)	(21.6)
	(0.00-0)	44.3%		(9.4)
	(2,997.8)	(2,825.7)	(172.1)	6.1
	1,500.0	2,911.6	(1,411.6)	(48.5)
	2.0	13.1	(11.1)	(84.7)
3	358.8	(413.8)	772.6	>(100.0)
	2.0	8.2	(6.2)	(75.6)
	(6.9)	23.2	(30.1)	>(100.0)
	1,855.9	2,542.3	(686.4)	(27.0)
	5.6	66.4	(60.8)	>(100.0)
	97.8	57.4	40.4	70.4
	(1,142.6)	(1,131.9)	(10.7)	0.9
	816.7	1,534.2	(717.5)	(46.8)
4	228.1	(515.3)	743.4	>(100.0)
	(236.9)	(46.2)	(190.7)	>100.0
	807.9	972.7	(164.8)	(16.9)
	809.1	888.9	(79.8)	(9.0)
			. ,	• • •
	(1.2)	83.8	(85.0)	>(100.0)
	4	(6.9) 1,855.9 5.6 97.8 (1,142.6) 816.7 4 228.1 (236.9) 807.9 809.1	(6.9) 23.2 1,855.9 2,542.3 5.6 66.4 97.8 57.4 (1,142.6) (1,131.9) 816.7 1,534.2 4 228.1 (515.3) (236.9) (46.2) 809.1 888.9	(6.9) 23.2 (30.1) 1,855.9 2,542.3 (686.4) 5.6 66.4 (60.8) 97.8 57.4 40.4 (1,142.6) (1,131.9) (10.7) 816.7 1,534.2 (717.5) 4 228.1 (515.3) 743.4 (236.9) (46.2) (190.7) 807.9 972.7 (164.8) 809.1 888.9 (79.8)

Quarter vs Previous Quarter analysis:

- 1 Lower revenue mainly due to lower TNB sales of electricity from all sectors.
- 2 Higher OPEX mainly due to higher generation cost driven by higher fuel prices (average coal price delivered RM1,028.1/MT vs RM1,023.8/MT).
- Forex translation gain from the strengthening of MYR against USD.
- 4 Lower current tax resulted from higher capital allowance and reinvestment allowance claim.

Y-o-Y normalised EBITDA & PAT for FY2022

	FY2022	FY2021
	RM mil	RM mil
	20,812.0	18,774.5
	-	276.4
	69.8	514.2
1	(4,440.1)	(4,137.6)
2	16,441.7	15,427.5
		RM mil 20,812.0 - 69.8 1 (4,440.1)

PAT	FY2022	FY2021
Components	RM mil	RM mil
Reported PAT	3,557.4	3,864.7
Impairment	-	276.4
Additional ADD for TNB*	69.8	514.2
Forex Translation Loss	249.5	67.4
MFRS16 impact 1	920.3	620.8
Normalised PAT 3	4,797.0	5,343.5

	Please refer MFRS16 impact slide for details.
,	
	Stronger normalised EBITDA in FY2022 (refer Appendix <u>Slide 2</u> for details).

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Lower normalised PAT in FY2022 due to higher tax expense from Prosperity Tax of RM340.8 mil and higher interest on borrowings of RM280.7mil.

*ADD FY22: RM126.9mil, approved ADD FY22: RM 57.1mil ADD FY21: RM714.5 mil, approved ADD FY21: RM200.3 mil

Higher Y-o-Y sales of electricity and contribution from subsidiaries, driven by stronger economic growth

	4QFY22	2	3QFY2	2	Variance (4QFY22 vs 3QFY22)		FY2022		FY2021			Variance (FY2022 vs FY2021)			
UNITS SOLD	GWh		GWh		GWh		%	G	3 Wh		GWh			GWh	%
Sales of Electricity (GWh)					_								_		
- TNB	29,415.1		30,347.5		1 (93)	2.4)	(3.1)	11	18,881.6		112,106.0		1	6,775.6	6.0
- SESB	1,433.0		1,472.3		(3	9.3)	(2.7)		5,734.8		5,373.5			361.3	6.7
- EGAT (Export)	0.2		-		Ì).2	-		0.5		1.3			(0.8)	(61.5)
- LPL	-		-		-		-		-		1,150.3		2	(1,150.3)	(100.0)
- TNBI (UK Wind)	23.5		14.3			9.2	64.3		82.3		72.5			9.8	13.5
- TNBI (Vortex)	38.8		126.7		3 (8 ⁻	7.9)	(69.4)		365.9		337.1		3	28.8	8.5
- TNBI (CEI UK LTD)	74.0		42.2		4 3	1.8	75.4		169.1		-		4	169.1	100.0
Total Units Sold (GWh)	30,984.6		32,003.0		(1,01	3.4)	(3.2)	12	25,234.2		119,040.7		Γ	6,193.5	5.2
REVENUE	RM mil	Sen/ kWh	RM mil	Sen/ kWh	(RM mi	I)	%	RI	M mil	Sen/ kWh	RM mil	Sen/ kWh		(RM mil)	%
Sales of Electricity (RM)															
- TNB	11,735.3	39.83	12,194.6	40.07	(45	9.3)	(3.8)	4	17,428.1	40.06	44,653.6	39.94		2,774.5	6.2
- Sales Discount	-		-			,	-		-		(540.9)			540.9	(100.0)
- SESB	492.3	34.37	504.5	34.26	(1:	2.2)	(2.4)		1,962.3	34.31	1,844.0	34.35		118.3	6.4
- Sales Discount	-		-				-		-		(0.7)			0.7	(100.0)
- Accrued Revenue	(20.4)		(34.7)		14	4.3	(41.2)		16.9		120.5			(103.6)	(86.0)
- EGAT (Export)	0.2	-	0.1	-	().1	(100.0)		0.6	-	0.4	-		0.2	50.0
- LPL	-		-		-		-		-	-	368.9	32.07		(368.9)	(100.0)
- TNBI (UK Wind)	34.4	146.38	21.1	147.55	13	3.3 :	>100.0		118.0	143.38	103.6	142.90		14.4	13.9
- TNBI (Vortex)	26.0	67.01	97.1	76.64		1.1)	(73.2)		280.1	76.55	264.8	78.55		15.3	5.8
- TNBI (CEI UK LTD)	70.6	95.41	31.4	74.41		9.2	124.8		139.6	82.55	-	-		139.6	100.0
Sales of Electricity	12,338.4	39.82	12,814.1	40.04	(47	,	(3.7)	4	19,945.6	39.88	46,814.2	39.33		3,131.4	6.7
Other Regulatory Adjustment	(98.7)		(228.0)		5 129	9.3	(56.7)		(778.1)		(551.9)		5	(226.2)	41.0
Relief Package from Government	-		-		-		-		0.6		474.1			(473.5)	(99.9)
SESB Tariff Support Subsidy	68.7		67.6			1.1	1.6		268.4		368.2			(99.8)	(27.1)
Fuel Subsidy - SESB	265.8		-		26		100.0	6	265.8		-			265.8	100.0
Others	-		-		-		-		-		(56.1)			56.1	(100.0)
Total Sales of Electricity	12,574.2		12,653.7			9.5)	(0.6)	4	19,702.3		47,048.5			2,653.8	5.6
Goods & Services	219.5		201.3			3.2	9.0		734.0		708.9			25.1	3.5
Construction contracts	49.2 72.2		38.6 68.2).6	27.5		155.1 276.3		93.4 269.1			61.7 7.2	66.1
Customers' Contribution Total Revenue	72.2 12.915.1		68.2 12.961.8			4.0 5.7)	5.9 (0.4)	-6	276.3		269.1 48.119.9			2.747.8	2.7 5.7
Imbalance Cost Pass Through	6,397.7		6,109.6		28		4.7	-	22.315.3		48,119.9			17.805.7	>100.0
TOTAL ICPT	6,397.7 6.397.7		6,109.6 6,109.6		28		4.7		22,315.3		4,509.6			17,805.7	394.8
TOTALICET	0,397.7		0,109.0		20		4.7		2,315.3		4,509.6			17,005.7	394.0

4QFY22 vs 3QFY22: Lower units sold and sales of electricity from all sectors.

FY2022 vs FY2021: Higher units sold and sales of electricity mainly from commercial and industrial sectors.

Divestment of LPL on 30 Nov 21.

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4QFY22 vs 3QFY22: Lower solar generation due to seasonality factor (winter season).

FY2022 vs FY2021: Higher generation mainly due to higher irradiance.

4QFY22 vs 3QFY22: Higher generation from offshore wind due to seasonality factor (higher wind speed).

FY2022 vs FY2021: Acquisition of 97.3MW onshore wind portfolio (UK) in April 2022.

Refer Other Regulatory Adjustment slide

Reported as Revenue in FY2022 due to IBR implementation in SESB.

As at FY2022, other regulatory adjustment of RM778.2 mil to be returned

Components of Other Regulatory Adjustment	1QFY22 (RM mil)	2QFY22 (RM mil)	3QFY22 (RM mil)	4QFY22 (RM mil)		
Revenue Adjustment for Revenue Cap & Price Cap	(44.2)	(239.4)	(211.8)	(21.7)	(517.1)	(323.2)
Refund Related to Regulated Business	(113.1)	(63.9)	(16.6)	(79.8)	(273.4)	(228.7)
Regulatory Adjustment for SESB*	0.6	8.6	0.4	2.7	12.4	-
TOTAL	(156.7)	(294.7)	(228.0)	(98.8)	(778.2)	(551.9)

*SESB has implemented IBR framew ork starting 1 January 2022

Revenue Cap

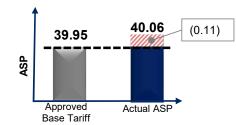


- The allowed annual revenue for revenue cap entities is based on 1.7% demand growth. Any excess/shortfall is adjusted through revenue adjustment mechanism.
- For FY2022, higher actual sales has led to amount to be returned via revenue adjustment mechanism.

Business Entities	Allowed Tariff (sen/kWh)	Variation in Sales (GWh)	Adjustment (RM mil)
Revenue Cap Entities	12.60	3,046.6	(383.3)*
		* No week a we	

Price Cap

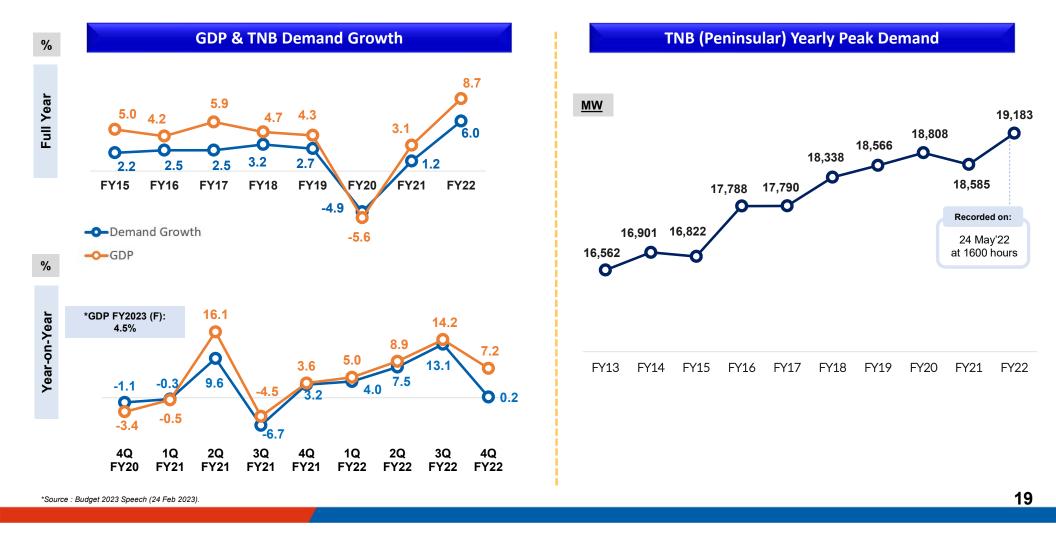
FY2022 Variation in ASP (sen/kWh)



- Any excess/shortfall of revenue earned due to higher/lower Average Selling Price (ASP) compared to Base Tariff is adjusted through revenue adjustment mechanism.
- For FY2022, the ASP recorded was higher than the Base Tariff, leading to amount to be returned via revenue adjustment mechanism.

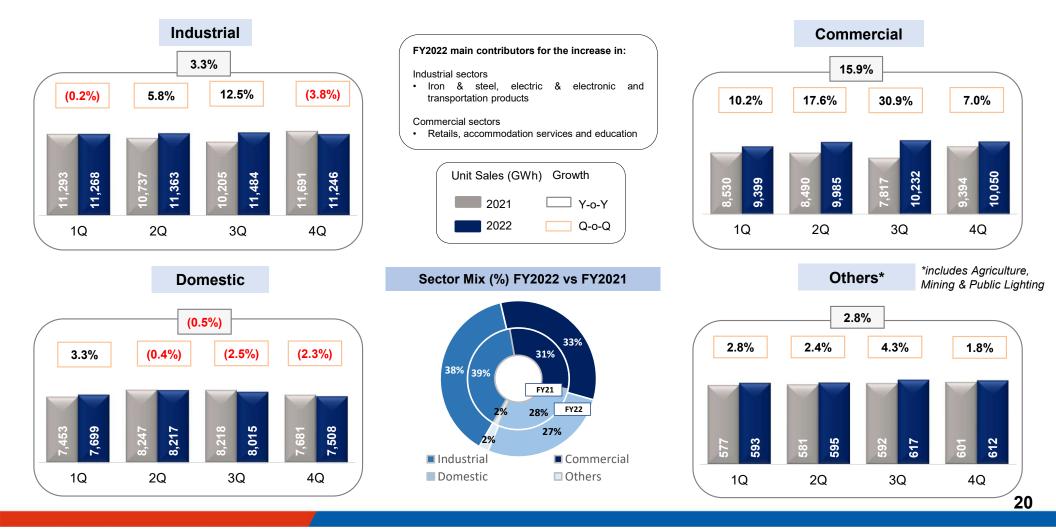
Business Entities	Actual Sales	Variation in ASP	Adjustment
	(GWh)	(sen/kWh)	(RM mil)
Price Cap Entity	118,881.6	(0.11)	(133.8)*

* Numbers manually computed will not match due to decimal variance



Y-o-Y electricity demand grew in tandem with GDP

Improved Y-o-Y electricity demand mainly in industrial & commercial sectors



Higher Y-o-Y operating expenses due to increase in generation cost

		4QFY22	3QFY22		ance /s 3QFY22)		FY2022	FY2021	Variance (FY2022 vs FY2021)			
		(RM mil)	(RM mil)	RM mil	%		(RM mil)	(RM mil)	RM mil	%		
Non-TNB IPPs Costs		5,097.7	5,337.5	(239.8)	(4.5)		17,999.5	8,863.8	9,135.7	>100.0	1	Reported as Revenue in FY2022 due to IBR
Capacity Payment		(58.4)	(81.7)	23.3	(28.5)		(328.5)	191.3	(519.8)	>(100.0)		implementation in SESB.
Energy Payment		5,156.1	5,419.2	(263.1)	(4.9)		18,328.0	8,672.5	9,655.5	>100.0	2	40EV22 via 20EV22: Higher concretion cost
TNB Fuel Costs		6,955.1	5,692.0	1,263.1	22.2		25,084.5	14,915.0	10,169.5	68.2		4QFY22 vs 3QFY22: Higher generation cost due to higher fuel prices.
Fuel Costs		6,322.7	5,280.6	1,042.1	19.7		20,315.1	11,255.2	9,059.9	80.5		• · ·
Fuel Price Adjustment		179.5	485.9	(306.4)	(63.1)		4,769.4	3,970.2	799.2	20.1		FY2022 vs FY2021: Higher generation cost mainly due to higher coal prices
Fuel Subsidy - SESB		452.9	(74.5)	527.4	>(100.0)	1	0.0	(310.4)	310.4	(100.0)		(USD212.5/MT vs USD116.2/MT).
Total Cost of Generation	2	12,052.8	11,029.5	1,023.3	9.3	2	43,084.0	23,778.8	19,305.2	81.2	3	
Staff Costs		979.1	950.8	28.3	3.0		3,801.8	3,958.6	(156.8)	(4.0)		FY2022 vs FY2021: Higher expenses driven by more R&M activities.
Repair & Maintenance		692.5	792.4	(99.9)	(12.6)	3	2,499.8	2,006.6	493.2	24.6	L	by more rain activities.
TNB General Expenses		694.9	368.6	326.3	88.5		1,873.5	1,838.2	35.3	1.9	4	FY2022 vs FY2021: Lower Subsidiaries
Subs. General Expenses		685.8	391.8	294.0	75.0	4	1,950.5	2,250.7	(300.2)	(13.3)		general expenses mainly due to impairment
Total Non-Generation Cost		3,052.3	2,503.6	548.7	21.9		10,125.6	10,054.1	71.5	0.7	L	made for GMR of RM 276.4mil in FY2021.
Total Operating Expenses (without Depreciation)		15,105.1	13,533.1	1,572.0	11.6		53,209.6	33,832.9	19,376.7	57.3	5	to MFRS16 adjustment for EDRA Energy and
Depreciation & Amortisation		2,997.8	2,825.7	172.1	6.1	5	11,402.5	10,691.5	711.0	6.7		growth in asset base.
Total Operating Expenses		18,102.9	16,358.8	1,744.1	10.7		64,612.1	44,524.4	20,087.7	45.1		

Higher Y-o-Y fuel costs mainly due to higher coal and gas prices

Table A – TNB & IPP Fuel Costs for Peninsular (RM mil)

Fuel Type	EV2022	FY2021	Varia	nce
Fuel Type	FY2022	F 1 202 I	RM mil	%
Coal	28,910.2	14,995.8	13,914.5	92.8
Gas	10,683.1	6,191.5	4,491.6	72.5
Distillate	606.2	173.1	433.1	>100.0
Oil	139.4	19.8	119.6	>100.0
Total	40,338.9	21,380.1	18,958.8	>100.0

Note: Comprise TNB Fuel Costs & fuel payments to IPPs (part of Energy Payment), exclude solar.

Table C – Fuel Costs Related Data

Fuel statistics	FY2022	FY2021
Average Coal Price Delivered (USD/MT)(CIF)	212.5	116.2
Average Coal Price Delivered (RM/MT)(CIF)	935.0	481.3
Coal Consumption (mil MT)	31.9	32.3
Gas Reference Market Price (RM/mmbtu)	1QFY22	1QFY21 : 15.4
	Tier 1 : 30.0	
	Tier 2 : 36.9	
	2QFY22	2QFY21 : 18.9
	Tier 1 : 30.0	
	Tier 2 : 38.2	
	3QFY22	3QFY21 : 21.4
	Tier 1 : 30.0	
	Tier 2 : 43.4	
	4QFY22	4QFY21 : 26.8
	Tier 1 : 30.0	
	Tier 2 : 51.2	
Daily Average Piped Gas Volume (mmscfd)	886	800
Generation Cost per Unit (sen/kWh)	31.0	17.0
,		

Table B – TNB & IPP Units Generated for Peninsular (GWh)

Fuel Type	FY20	22	FY2	021	Variance		
i dei Type	GWh	Gen. Mix	GWh	Gen. Mix	GWh	%	
Coal	72,917.6	55.9%	74,415.7	59.2%	(1,498.1)	(2.0)	
Gas & LNG	48,477.3	37.2%	43,175.1	34.3%	5,302.2	12.3	
Distillate	680.5	0.5%	157.2	0.1%	523.3	>100.0	
Oil	2.8	0.0%	31.0	0.0%	(28.2)	(91.0)	
Hydro	6,751.2	5.2%	6,832.4	5.4%	(81.2)	(1.2)	
Solar	1,622.5	1.2%	1,111.1	0.9%	511.4	46.0	
Total	130,451.9	100.0%	125,722.5	100.0%	4,729.4	3.8	

Table D – Average Coal Price Delivered (USD/MT)

CIF	212.5	116.2	96.3	82.9
Others	0.5	0.5	(0.0)	(4.0)
Freight	13.3	11.7	1.6	13.6
FOB	198.7	104.0	94.7	91.1
	FY2022	FY2021	Varian USD	ce %

Higher 4Q vs 3Q fuel costs mainly due to higher coal price

Fuel Type	4QFY22	3QFY22	2QFY22	1QFY22	Variance 4Q vs 3Q		
Fuel Type	4QF122	JULLIZ	2QF 122	IQF 122	RM mil	%	
Coal	8,099.8	7,418.2	8,410.4	4,981.8	681.6	9.2	
Gas	2,721.0	2,820.5	2,619.6	2,521.9	(99.5)	(3.5)	
Distillate	60.1	36.9	94.7	414.5	23.2	63.0	
Oil	34.3	105.1	-	0.0	(70.8)	(67.3)	
Total	10,915.3	10,380.7	11,124.7	7,918.2	534.6	5.2	

Note: Comprise TNB Fuel Costs & fuel payments to IPPs (part of Energy Payment), exclude solar.

Table C – Fuel Costs Related Data

Fuel statistics	4QFY22	3QFY22	2QFY22	1QFY22
Average Coal Price Delivered (USD/MT)(CIF)	222.4	229.7	221.4	165.5
Average Coal Price Delivered (RM/MT)(CIF)	1028.1	1,023.8	960.4	696.3
Coal Consumption (mil MT)	7.8	8.3	8.4	7.4
Gas Reference Market Price (RM/mmbtu)				
Tier 1	30.0	30.0	30.0	30.0
Tier 2	51.2	43.4	38.2	36.9
Daily Average Piped Gas Volume (mmscfd)	866	862	905	912
Generation Cost per Unit (sen/kWh)	33.9	31.2	33.6	24.8

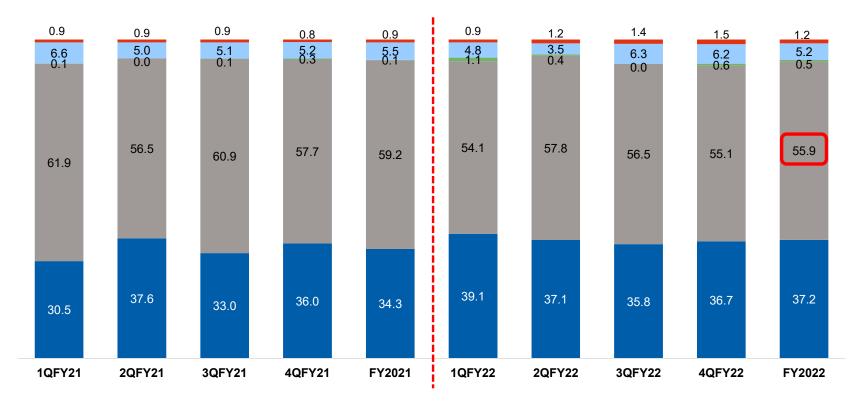
Table B – TNB & IPP Units Generated for Peninsular (GWh)

Fuel Type	4QF)	(22	3QFY22		2QF	2QFY22		1QFY22		4Q vs 3Q
	GWh	Gen. Mix	GWh	%						
Coal	17,690.5	55.1%	18,830.2	56.5%	19,164.8	57.8%	17,232.1	54.1%	(1,139.7)	(6.1)
Gas & LNG	11,779.5	36.7%	11,935.7	35.8%	12,309.8	37.1%	12,452.3	39.1%	(156.2)	(1.3)
Distillate	200.6	0.6%	3.6	0.0%	137.1	0.4%	339.2	1.1%	197.0	>100.0
Oil	0.1	0.0%	2.7	0.0%	-	0.0%	-	0.0%	(2.6)	(96.3)
Hydro	1,977.5	6.2%	2,095.6	6.3%	1,134.7	3.4%	1,543.4	4.8%	(118.0)	(5.6)
Solar	469.0	1.5%	450.0	1.4%	401.5	1.2%	302.0	0.9%	19.0	4.2
Total	32,117.2	100.0%	33,317.8	100.0%	33,147.9	100.0%	31,869.0	100.0%	(1,200.5)	(3.6)

Table D – Average Coal Price Delivered (USD/MT)

	4QFY22	3QFY22	2QFY22	1QFY22	Variance 40 USD	Qvs 3Q %
FOB	208.7	215.8	207.1	152.3	(7.1)	(3.3)
Freight	13.2	13.4	13.8	12.6	(0.3)	(1.9)
Others	0.5	0.5	0.5	0.5	(0.0)	(4.1)
CIF	222.4	229.7	221.4	165.5	(7.3)	(3.2)

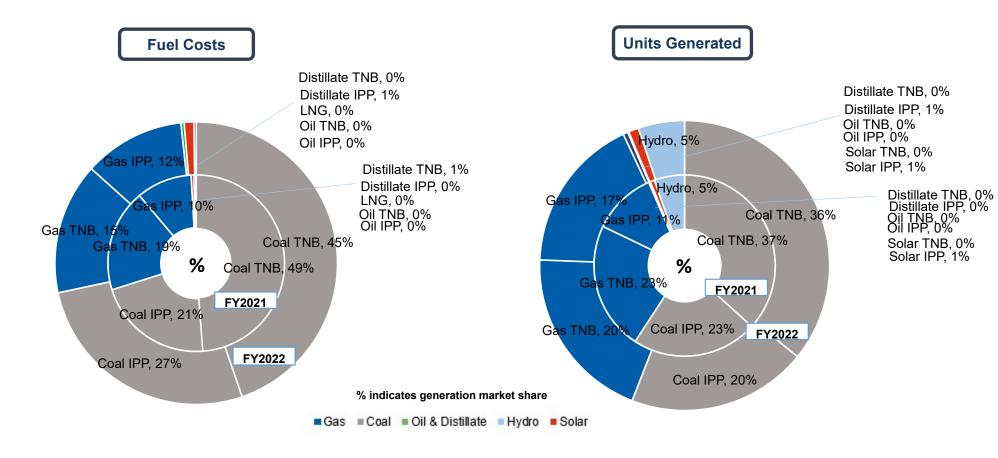
Lower generation from coal in FY2022



Generation Mix for Industry (%)

■Gas ■Coal ■Oil & Distillate ■Hydro ■Solar

Fuel Costs & Units Generated (TNB & IPPs – Peninsular)



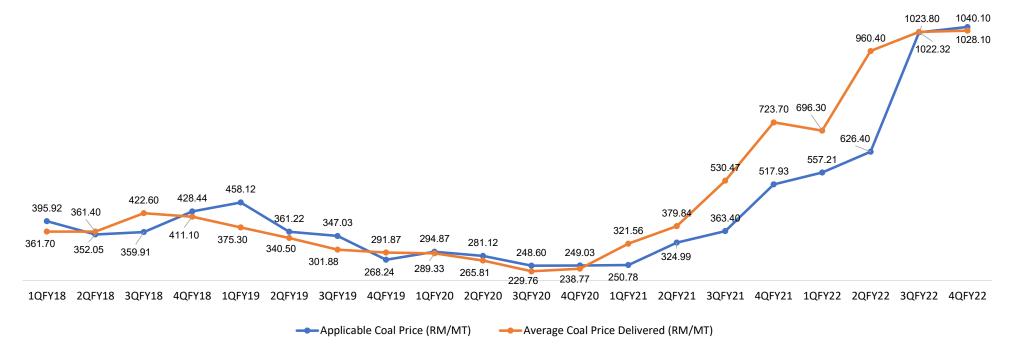
TNB is neutral to volatility in fuel costs under the ICPT framework

	1QFY22	2QFY22	3QFY22	4QFY22	FY2022
	(RM mil)	(RM mil)	(RM mil)	(RM mil)	(RM mil)
Reported Total Cost of Generation (with MFRS16)	8,367.1	11,634.6	11,029.5	12,052.8	43,084.0
Adjustment not related to IBR	909.5	948.3	840.2	307.2 [*]	3,005.2
TNB Capacity and VOR: SLA & SPV	1,816.1	1,621.5	2,191.0	1,744.5	7,373.0
Total Generation Costs (Related to IBR)	11,092.7	14,204.4	14,060.7	14,104.5	53,462.2

	1QFY22	2QFY22	3QFY22	4QFY22	FY2022
	(RM mil)				
Single Buyer Actual Generation Costs: (A)	11,092.7	14,204.4	14,060.7	14,104.5	53,462.2
Actual Sales (GWh)	28,959.3	30,159.7	30,347.5	29,415.1	118,881.6
Single Buyer Tariff (RM/kWh)	0.2620	0.2620	0.2620	0.2620	0.2620
Actual Gen Cost Recovered (RM mil) (B)	7,587.3	7,901.8	7,951.0	7,706.8	31,147.0
ICPT Surcharge / (Rebate) (C) (C = A – B)	3,505.4	6,302.6	6,109.6	6,397.7	22,315.3

*Reclass of SESB Fuel Subsidy from cost to revenue in 4QFY22

Coal price trending



Coal price & Applicable Coal Price (ACP) comparison

	4QFY21	1QFY22	2QFY22	3QFY22	4QFY22
Average Coal Price Delivered (RMmmbtu) *	32.88	31.88	46.76	48.88	44.96
ACP (RM/mmbtu)	23.73	25.53	28.70	46.84	47.65

* Based on internal conversion

- Fuel Price Adjustments (FPA) is the difference between the Applicable Coal Price (ACP) used to bill the generators and the actual coal price paid to supplier. The difference is caused by higher or lower coal price or due to currency exchange.
- In 4QFY22, the base ACP (RM47.65/mmbtu) used for billing the generators is higher than the coal price paid to supplier (RM44.96/mmbtu).

Industry coal requirement forecast for FY2023

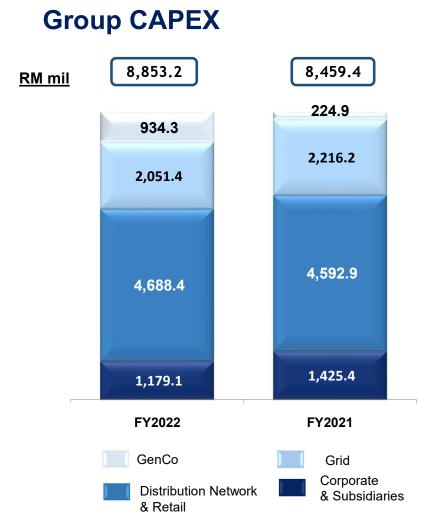
Source Country Mix 3.0% 34.7 32.3 31.9 10.0% 31.5 30.8 28.8 27.4 25.4 22.2 17.0% 19.3 70.0% **FY14** FY15 **FY18 FY19 FY20** FY21 FY22 FY23 (F)* **FY16 FY17** Indonesia Australia Russia South Africa * Based on tonnage planned for delivery in FY2023

Coal Consumption (mil MT)

MFRS 16: Group PAT is negatively impacted by RM920.3 mil in FY2022

Net Impact of MFRS 16 (Y-o-Y) analysis

	FY2022 (RM mil)	FY2021 (RM mil)	Variance (RM mil)
Capacity Payment	4,440.1	4,137.6	302.5
Depreciation	(3,875.9)	(3,473.4)	(402.5)
Finance Cost	(1,756.4)	(1,460.1)	(296.3)
Deferred Tax	271.9	175.1	96.8
Net Impact	(920.3)	(620.8)	(299.5)



Regulated CAPEX and Regulated Asset Base (RAB)

	RP3 REGULATED ENTITIES CAPEX				
FY	IBR Approved (RM mil)	Actual YTD (RM mil)	Utilisation (%)		
2022	7,168.0	6,723.3	93.8%		

Total RAB (RM mil)				
Actual FY2022	Approved FY2022			
61,339.4	62,248.7			
Regulatory net returns: RM4,519.6 mil				

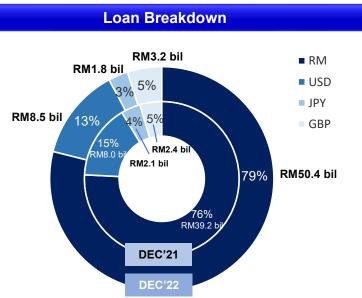
Note: Numbers manually computed will not match due to decimal variance

Gearing stood at 51.2% in FY2022

Statistics	31 Dec 2022	31 Dec 2021	
Total Debt (RM bil)	63.9	51.7	
Net Debt (RM bil)*	50.8	42.5	
Gearing (%)	51.2	47.0	F
Net Gearing (%)	40.7	38.6	
Fixed : Floating			I
Underlying	95:5	95:5	
Final Exposure	99:1	99:1	
Effective Average Cost of Borrowing (based on exposure) **	4.63	4.61	

* Net Debt excludes deposits, bank and cash balances and investment in UTF

** Inclusive of interest rate swap



Investment Financing Principle: Currency to match revenue streams				
Closing 31 Dec 2022 31 Dec 2021				
USD/RM 4.41 4.17				
100YEN/RM	3.33	3.63		
GBP/RM 5.31 5.63				

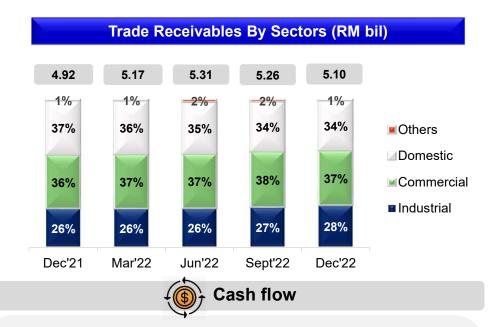
Note: Debt consists of Principal + Accrued Interest

Improvement in trade debtors balance by 2.9% in Dec'22



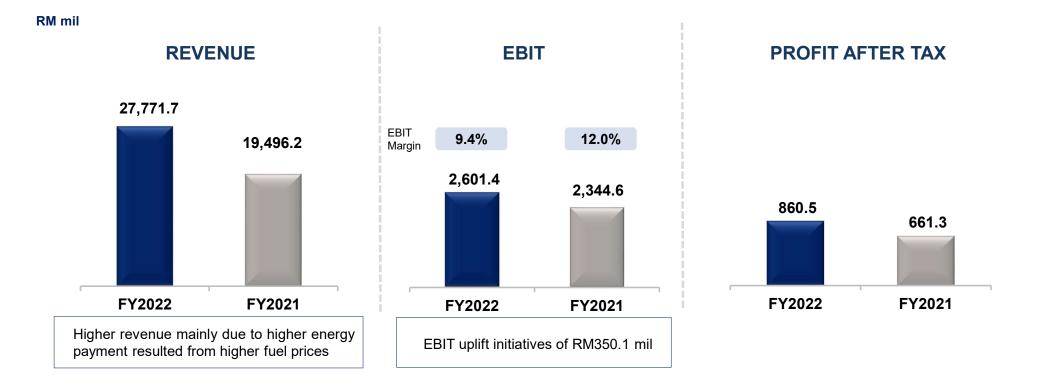
Ongoing initiatives to improve collection

- Promotional activities to increase enrolment of Autopay, Direct Debit and e-Bulk Scheme to targeted domestic and non-domestic customers.
- Enrich customer experience, especially via digital payment channels such as myTNB, Online Banking and e-Wallet.
- Provide personalised engagement with large power consumers such as SMEs and Government and Large Business (GLB).
- Perform close monitoring on commercial and industrial customers with debt exposure, especially those under vulnerable sub-sectors.

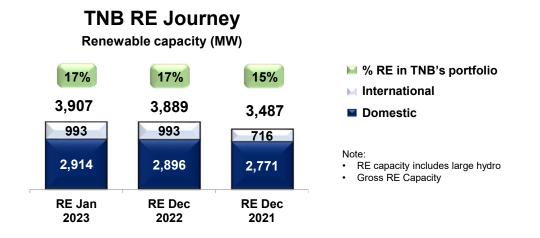


- We continuously monitor our cash flow position on a daily basis and remain prudent on our working capital management.
- For FY2022, the allowance for doubtful debts for TNB is RM126.9 mil.

Domestic generation business performance



Our RE journey is progressing well



Recent RE Progress

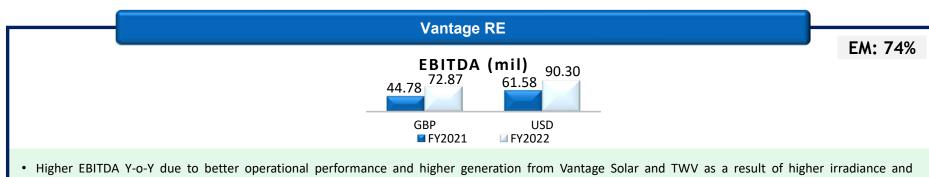
1) Domestic renewables

- We have signed a 30-year power purchase agreement for the 300MW Nenggiri hydro plant which is expected to commence on 1 June 2027. The construction works have started since 1 March 2022.
- GSPARX has successfully secured a total capacity of 258.6MW as of Jan 2023. (Dec 2022: secured 240.9MW, Dec 2021: secured 116.3MW).
- Successfully commissioned a mini hydro of 4.0MW in Sungai Tersat, Kuala Berang in December 2021.

2) UK / Europe renewables

- In December 2022, we have successfully acquired 102MW of solar farms in the UK & potential development of 65MW for battery storage. The solar farms are expected to achieve Commercial Operation Date (COD) by Q1 2024.
- In June 2022, Bajoli Holi hydro power plant of 180MW in GMR was successfully commissioned.
- In April 2022, we successfully acquired 97.3MW Onshore Wind Portfolio in the UK.
- We have successfully acquired a 49% stake in Blyth Offshore Demonstrator Ltd (BODL), an offshore UK wind farm company in October 2021, with existing floating offshore wind capacity of 41.5MW and further development rights for similar type of RE of up to 58.4MW.
- In May 2021, we acquired a 500kW FiT turbine in the UK.
- The formation and establishment of Vantage RE Ltd or RACo has been completed on 1 July 2021.

INTERNATIONAL BUSINESS - CORE/RENEWABLE ENERGY (RE) ASSETS International Performance as at Dec'22



- favourable wind speed conditions experienced across the UK in 2022.
- Performance was further supported by higher PPA locked-in prices for both assets.
- The addition of 97.3MW onshore wind asset in April 2022 has resulted in an increase to EBITDA by £20.7 mil on a Y-o-Y basis.
- The total cash distribution declared to date amounting £159.3 mil.

Outlook for Vantage RE:

- Successfully completed acquisition of a 97.3MW operating onshore wind portfolio in the UK on 1st April 2022 with addition of MW growth and EBIT contribution to the portfolio.
- Successfully completed first greenfield acquisition a 102MW Ready-to-Build (RTB) solar portfolio with an option to develop 65MW BESS in the UK in December 2022. Expected Commercial Operation Date (COD) of the solar portfolio is Q1 2024.
- Vantage is focused on expanding its current pipeline build to include more greenfield assets at various stages and technologies as it pursues a higher economic internal rate of return.
- Vantage Solar and CEI UK have also locked-in Renewable Energy Guarantees of Origin (REGO) prices with expected upside over the next 5 years.
- The UK Government has introduced the 'Electricity Generator Levy' (EGL) beginning 1st January 2023 until 31st March 2028. There will be a new 45% tax
 on receipts made by low carbon generators above a benchmark power price of £75/MWh (referred to as Exceptional Generation Receipts), with an
 allowance of £10 mil per annum. The benchmark price will be indexed with CPI from 2025 onwards and subsidised revenues are exempted under the EGL.
- Inflation increased to 10.5% in December 2022 and remained elevated throughout 2022. In 2023, inflation is expected to average at 7.1%. However, no adverse impact is anticipated as Vantage's subsidy revenue is inflation linked and likely to offset any increase in operating expenses.

Notes : EM : YTD EBITDA Margin

INTERNATIONAL BUSINESS - NON-CORE ASSETS

International Performance as at Dec'22

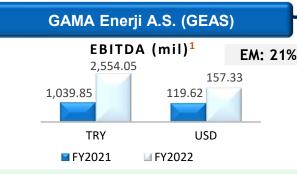


- Lower EBITDA Y-o-Y due to higher operating cost as a result of electricity import cost from the total plant outage at SWEC (Water and Power) in March, August and December 2022.
- Shuaibah maintains solid financial performance with higher Y-o-Y net profit margin by 11.7%.

Outlook for Shuaibah:

- Shuaibah is to remain largely unimpacted by the Russia-Ukraine war as the Power and Water Purchase Agreement (PWPA) has been contracted for 20 years with the Saudi Government as the offtaker.
- Shuaibah's performance is expected to remain positive with a consistent dividend distribution to shareholders.

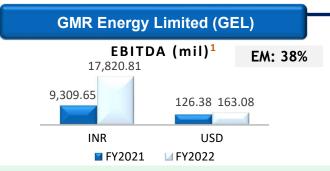
Notes : EM : YTD EBITDA Margin ¹Reported 3 months lagging ²EPIAS is the market operator responsible for operating day-ahead, intra-day and balancing markets in the country



- Higher EBITDA Y-o-Y is mainly contributed by higher power prices as a result of higher share of gas generation.
- There has been no impact to GEAS operations from the recent earthquake.

Outlook for GEAS:

- Turkey is experiencing hyperinflationary economy as Turkey's inflation has surged at all time high ~85%. However, GEAS remains operationally profitable (EBITDA), benefiting from the lucrative electricity prices which is underpinned by high gas price and seasonal hydro generation. Furthermore, some portions of GEAS' revenue and cost are indexed to USD, and this cushion the financial impact of the hyperinflation and provides steady cash flows to GEAS.
 Recently, Energy Market Regulatory Authority (EMRA) postponed EPIAS's² advance payment, imbalance and collateral obligations in the affected earthquake region for 30 days starting February 2023.
- GEAS had fully repaid the debt repayment for ICAN's debt scheduled in 2022 and the successfully restructured debt within GEAS's portfolio provides sustainability to weather through current volatility in the market. In near term, GEAS is expected to secure payment for principal and interest in 2023 to 2024 from DIWACO's dividends and ICAN's cash flows.

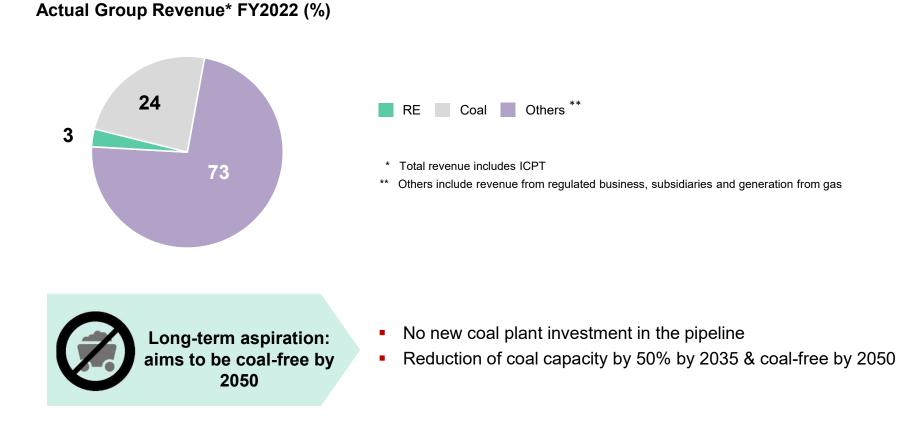


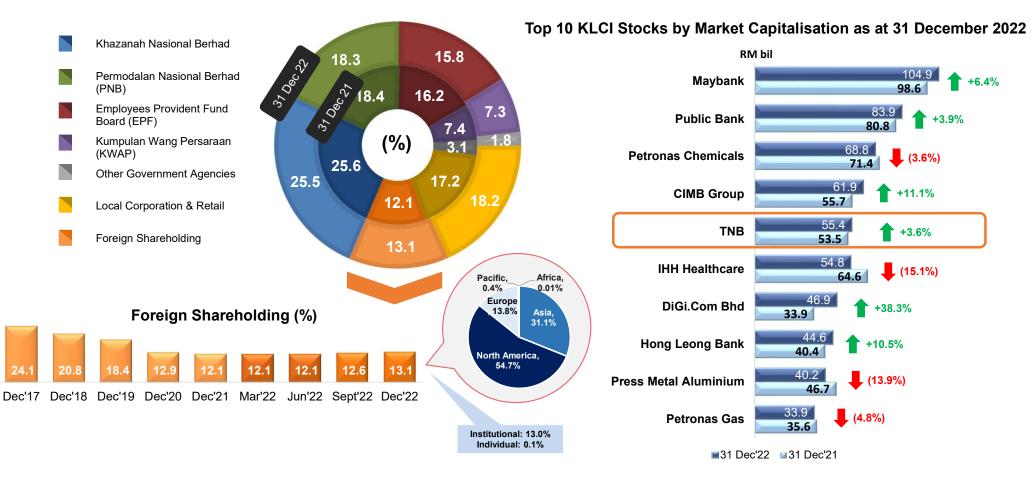
- Higher EBITDA Y-o-Y due to the full consolidation of Kamalanga's financial results upon the recognition of Kamalanga as a subsidiary (GEL previously recognised Kamalanga's share of profits only).
- The higher EBITDA is also due to higher merchant prices causing higher energy sales.

Outlook for GEL:

- Further improvement in economic activities is expected that will drive the power consumption and demand with the usage of heating appliances during winter, especially in the northern parts of the country.
- GEL coal plants (i.e., Kamalanga and Warora) had drawn up their coal strategies to ensure 100% linkage coal supply and coal procurement at competitive prices via e-auctions. GEL opines that domestic coal prices will go back to normal due to higher anticipated production by Coal India Limited.
- TNB is supportive of GEL's current initiatives to preserve value and sustainability of the portfolio, while in parallel pursuing exit strategies to enable TNB to re-focus its resources and capital into Renewable Energy (RE) in key markets, in line with TNB's approved "Reimagining TNB Strategy".

Revenue from coal remains below 25%, in line with longer-term aspiration





TNB market capitalisation of RM55.4 bil as at 31 December 2022

Source: Share Registrar, Bloomberg and IR Internal Analysis



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THANK YOU

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